

### **DETAILED ACTION**

1. This Office Action is in response to Applicant's Amendment filed October 21, 2009. Claims 1, 7-11, 17-21, 24-25, 27-28, 31, 33-37, 39, 41-42, 45, 47-51, 53, 57-58, and 60-66 are currently pending in this case. Claims 25 and 39 are currently amended. Claims 25, 33, 39, and 47 are currently under examination.

### ***Response to Arguments***

2. Applicant's arguments filed October 21, 2009, regarding the section 101 rejections have been fully considered but they are not persuasive.

3. Applicant argues regarding the section 101 rejection of claim 39 and 47, as currently amended, that the claims are now properly tied to an apparatus or device.

4. Examiner respectfully disagrees. In this case, the apparatus or device in claim 39 represents merely extra-solution activity. It is suggested that language be amended in this manner, "storing registration information by a (*device, such as a server*) . . . "

The section 101 rejection of claims 39 and 47 is, therefore, maintained.

5. Applicant's arguments, see Remarks, filed October 21, 2009, with respect to the section 112, first paragraph rejections, of the claims, as currently amended, have been fully considered and are persuasive. The section 112, first paragraph rejection of claims 25, 33, 39, and 37 has been withdrawn.

6. Applicant's arguments filed October 21, 2009 and regarding the section 112 rejection of claims 25 and 33 have been fully considered but they are not persuasive. Since claim 25 recites both an apparatus and method for the use of that apparatus, claim 25 and its dependent claim 33 are rejected under 35 U.S.C. 112, second

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paragraph. A single claim which purports to be both a product or machine and a process is ambiguous and is properly rejected under 35 USC 112, second paragraph, for failing to particularly point out and distinctly claim the invention. *Ex Parte Lyell*, 17 USPQ2d 1548 (B.P.A.I. 1990).

7. Also, regarding claim 25, it is unclear whether the generating and authenticating are steps of the process being executed or steps in the controlling the process. Note that an essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed. *In re Zletz*, 13 USPQ2d 1320 (Fed. Cir. 1989) Therefore, independent claim 25 and its dependent claim 33 are rejected under 35 U.S.C. 112, second paragraph.

8. Applicant's arguments with respect to the section 103 rejections of claims 25, 33, 39, and 47, as currently amended, have been considered but are moot in view of the new ground(s) of rejection.

### ***Remarks***

9. Note that, in claims 25 and 33, the recitation “. . . wherein a plurality of spots of different DNA probes are arranged . . . “ constitutes nonfunctional descriptive data, and thus does not serve to further limit the claims. *In re Gulack*, 217 USPQ 401 (Fed. Cir. 1983), *In re Ngai*, 70 USPQ2d (Fed. Cir. 2004), *In re Lowry*, 32 USPQ2d 1031 (Fed. Cir. 1994); MPEP 2106.01 II.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 25, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bancroft et al (US 6,312,911) in view of Black (US 6,307,956).

Regarding claim 25 –

Bancroft discloses an authentication system (abs, col 2 ln 50-60, col 3 ln 28-34 col 7 ln 28-35) the system comprising:

information which includes layout information representing positions of reacted spots on reacted DNA array; (col 7 ln 60-col 8 ln 5, col 8 ln 45-55)

acquisition means for detecting positions of reacted spots on a reacted DNA array and acquiring layout information indicative of the detected positions of reacted spots; (col 5 ln 35-55, col 6 ln 42-62, col 7 ln 40-55) and

controlling means for executing a process comprising the steps of:

(i) generating authentication information on the basis of the layout information acquired by said acquisition means; (col 7 ln 22-40) and

(ii) collating the authentication information with the registration information, and making authentication, (col 7 ln 55-60)

wherein a plurality of spots of different DNA probes are arranged on the DNA array so that the DNA array presents a different combination of reacted spots depending on a different personal DNA, each of the spots indicates presence or absence of a target gene arrangement by presence or absence of reaction. (col 8 ln 38-45, col 8 ln 7-15, col 8 ln 55-60).

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12. Bancroft does not specifically disclose an authentication certificate. However, at col 7 ln 7 ln 17-28, Bancroft does disclose authentication of any object requiring authentication via the technique described therein attaching a “tag” marked with DNA for use in authenticating the object. It would, therefore, be a predictable result for a practitioner of ordinary skill in the art to use the teachings of Bancroft for creating a certificate to which DNA is attached for authentication purposes. *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (U.S. 2007).

13. Bancroft does not specifically discloses a storage means for storing registration information, although it does recite, the combination of a of a DNA sample with DNA chip technology. (col 7 ln 55-60) Black, however, does teach a storage means for storing registration information (col 4 ln 50-68, col 8 ln 32-56), in the context of an identity verification system, based on biometrics, including, inter alia, DNA (col 7 ln 55-60).

14. It would be obvious to one of ordinary skill in the art to combine Bancroft and Black motivated by the need to issue a unique authentication certificate.

15. Regarding claim 39 –

16. Bancroft discloses an authentication method (abs, col 2 ln 50-60, col 3 ln 28-34 col 7 ln 28-35) comprising the steps of:

(i) information including layout information representing positions of reacted spots on a reacted DNA array obtained by reacting a DNA array in which a plurality of spots of different DNA probes corresponding to plural kinds of genes are arranged in a

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predetermined order, with a gene obtained from a given person; (col 7 ln 60-col 8 ln 5, col 8 ln 45-55)

(ii) detecting positions of reacted spots on a reacted DNA array and acquiring layout information indicative of the detected positions of reacted spots; (col 5 ln 35-55, col 6 ln 42-62, col 7 ln 40-55)

(iii) generating authentication information on the basis of the layout information acquired in the step (ii); (col 7 ln 22-40) and

(iv) collating the authentication information generated in the step (iii) with the registration information, and making authentication, (col 7 ln 55-60)

wherein a plurality of spots of different DNA probes are arranged on the DNA array so that the DNA array presents a different combination of reacted spots depending on a different personal DNA, each of the spots indicates presence or absence of a target gene arrangement by presence or absence of reaction. (col 8 ln 38-45, col 8 ln 7-15, col 8 ln 55-60).

17. Bancroft does not specifically disclose an authentication certificate. However, at col 7 ln 7 ln 17-28, Bancroft does disclose authentication of any object requiring authentication via the technique described therein and attaching a “tag” marked with DNA for use in authenticating the object. It would, therefore, be a predictable result for a practitioner of ordinary skill in the art to use the teachings of Bancroft for creating a certificate to which DNA is attached for authentication purposes. *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (U.S. 2007).

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18. Bancroft does not specifically disclose a storage means for storing registration information, although it does recite, the combination of a of a DNA sample with DNA chip technology. (col 7 ln 55-60) Black, however, does teach a storage means for storing registration information (col 4 ln 50-68, col 8 ln 32-56), in the context of an identity verification system, based on biometrics, including, inter alia, DNA (col 7 ln 55-60).

19. It would be obvious to one of ordinary skill in the art to combine Bancroft and Black motivated by the need to issue a unique authentication certificate.

20. Claims 33 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bancroft et al (US 6,312,911) in view of Black (US 6,307,956), further in view of Yguerabide et al (US 6,586,193).

21. Regarding claim 33 and 47 -

22. Bancroft and Black disclose as discussed above.

23. Neither Bancroft nor Black discloses wherein the DNA array comprises the DNA probes associated with major histocompatibility complex antigens and single nucleotide polymorphisms. Yguerrabide, however, does. (col 104, ln 5-28, col 104 ln 32-37)

24. It would be obvious to one of ordinary skill in the art for such an arrangement to be used in conjunction or in combination with Bancroft in order to issue a unique authentication certificate.

### ***Conclusion***

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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26. Force et al (US 5,533,123) disclose programmable distributed personal security through, inter alia, biometric information.

27. Musgrave et al (US 6,202,151) disclose a system and method for authenticating electronic transactions using biometric certificates.

28. Pare, Jr., et al (US 6,230,148) disclose tokenless biometric electric check transactions.

29. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

30. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CRISTINA SHERR whose telephone number is (571)272-6711. The examiner can normally be reached on 8:30-5:00 Monday through Friday.

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32. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Calvin L. Hewitt, II can be reached on (571)272-6709. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

33. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CRISTINA OWEN SHERR  
Examiner  
Art Unit 3685

/Calvin L Hewitt II/  
Supervisory Patent Examiner, Art Unit 3685